

TASK ANALYSIS  
AEC II (M1-M7)

November 1, 2004  
TG-17-2004-IBC, Appendix E-2

MODULES (M)	Module Tasks & Representative Subtasks		Percent of All Tasks
Clark County Codes, Technician/Inspector duties & responsibilities, project documentation and MODULE 1: communication, safety on grading projects, Agency's QSM Procedures (including relevant International Building Code provisions when adopted)			12%
TASK M 1.1	- 2000 International Building Code (IBC)		
Subtasks:	1	Chapter 17, Section 1704.6 Soils	
	2	Chapter 17, Section 1803 (1803.1, 1803.2, 1803.3, 1803.4) Excavation, Grading and Fill	
TASK M 1.2	- 2003 Southern Nevada Amendments to the 2000 International Building Code (SNA-IBC)		
Subtasks:	1	1802.6 Reports	
	2	1803.4 Compacted Fill material	
	3	Appendix K, Section 1.2 Definitions	
	4	Appendix K, Section 1.5 Inspections	
	5	Appendix K, Section 1.6 Excavations	
	6	Appendix K, Section 1.7 Fills	
	7	Appendix K, Section 1.8 Setbacks	
	8	Appendix K, Section 1.9 Drainage and Terracing	
TASK M 1.3	- 2004 Building Administrative Code of Clark County (BAC)		
Subtasks:	1	22.02.520 Approved Special Inspector	
Subtasks:	1	22.02.525 Duties and Responsibilities of the Quality Assurance Agency and Special Inspector	
TASK M 1.4	- Technical Guidelines (TG)		
	1	TG-20 (Current Release): Special Inspector Responsibilities	
TASK M 1.5	- Quality Systems Manual (QSM)		
Subtasks:	1	Project documentation & communication	
	2	Safety on the job	
TASK M 1.6	- General		
Subtasks:	1	Units of measurement, conversions and basic arithmetic	

MODULES (M)	Module Tasks & Representative Subtasks	Percent of All Tasks
<b>MODULE 2: Typical Laboratory tests of soils</b> <span style="float: right;"><b>20%</b></span>		
	TASK M 2.1 - Moisture-Density Relation of soils (ASTM D 1557)	
Subtasks:	1 Understand the test	
	2 Perform the test	
	3 Understand factors that may affect test results	
	4 Understand corrections to OMC and MDD for the presence of oversize rocks	
	TASK M 2.2 - Family of Curves: One-point method (AASHTO T272)	
Subtasks:	1 Understand the test	
	2 Perform the test	
	3 Understand factors that may affect test results	
	TASK M 2.3 - Gradation (ASTM D422, ASTM C136, ASTM C117)	
Subtasks:	1 Understand the test	
	2 Perform the test	
	3 Understand factors that may affect test results	
	TASK M 2.4 - Atterberg Limits (ASTM 4318)	
Subtasks:	1 Understand the test	
	2 Perform the test	
	3 Understand factors that may affect test results	
	TASK M 2.5 - USCS Classification System (ASTM ASTM D 2487)	
Subtasks:	1 Understand the test	
	2 Perform the test	
	3 Understand factors that may affect test results	
	TASK M 2.6 - Visual Identification of soils (ASTM D 2488)	
Subtasks:	1 Understand the test	
	2 Perform the test	
	3 Understand factors that may affect test results	
<b>MODULE 3: Advanced Laboratory Tests of Soils</b> <span style="float: right;"><b>1%</b></span>		
	TASK M 3.1 - Expansion Potential (ASTM D 3877) & Swell Test (SNBCA 1803.2)	
Subtasks:	1 Understand the test	

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MODULE 4: In-place field density testing using the Nuclear Gauge and Sandcone methods			15%
TASK M 4.1 - Sandcone Method (ASTM D 1556)			
Subtasks:	1	Equipment	
	2	materials	
	3	Calibration & maintenance	
	4	Testing procedure	
	5	Factors that may affect test results	
	6	Calculations	
	7	Documentation	
TASK M 4.2 - Nuclear Gauge			
Subtasks:	1	Equipment	
	2	Calibration, standardization and maintenance	
	3	Testing procedure	
	4	Factors that may affect test results	
	5	Calculations	
	6	Documentation	
MODULE 5: Grading plans & construction staking			23%
TASK M 5.1 - Grading Plans			
Subtasks:	1	Identification of natural, existing, and design contours	
	2	Identification of Cut/fill line	
	3	Identification of cut/fill transition	
	4	Identification of cut areas	
	5	Identification of fill areas	
	6	Identification of extent of grading within the Permit Area	
	7	Understand grading plan details	
	8	Understand topography depicted on grading plans	
	9	Identification of project occurrences on grading plans (such as overexcavation limits, stockpiles, etc.)	
TASK M 5.2 - Construction Staking			
Subtasks:	1	Understand the use of construction or surveys stakes	
	2	Identify various markings used on construction or survey stakes	

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MODULES (M)	Module Tasks & Representative Subtasks		Percent of All Tasks
MODULE 6: Earthwork construction equipment			4%
TASK M 6.1	- Hauling Equipment		
Subtasks:	1	Types & uses	
TASK M 6.2	- Processing Equipment		
Subtasks:	1	Types & uses	
TASK M 6.3	- Support Equipment		
Subtasks:	1	Types & uses	
TASK M 6.4	- Compaction Equipment		
Subtasks:	1	Types & uses	
MODULE 7: Basics of grading operations of low-risk projects, i.e., grading projects with no adverse soil conditions			25%
TASK M 7.1	- Implementation of Laboratory test results during grading operations		
Subtasks:	1	Implementation of sieve analysis tests	
	2	Implementation of MDD-OMC test	
TASK M 7.2	- Geotechnical Reports		
Subtasks:	1	Understand boring logs	
	2	understand site geology	
	3	Understand project soils conditions	
	4	Understand the geotechnical report's earthwork construction recommendations (overexcavation, fill material, compaction, etc.)	
TASK M 7.3	- Shallow Foundations		
Subtasks:	1	Identify foundation details	
	2	foundation inspection	
TASK M 7.4	- Earthwork Construction		
Subtasks:	1	Be familiar with general soil conditions in the Las Vegas Valley and the standard practice dealing with typical soil conditions	
	2	Identify competent soil for cleanouts or overexcavation	
	3	Identify competent soil or bedrock for cleanouts, or overexcavation	
Number of Tasks is			Total AEC II
25			100%